CLAIMS

What is claimed is:

1. A color bar code system comprising:

a camera reader to read at least one bar code, said bar code being formed of a subset of N bar code colors; and

a color selector to select said N bar code colors to be generally distinct from each other given the range of colors that said camera reader is expected to produce given at least one environmental condition in which said camera reader is expected to operate.

2. A system according to claim 1 and wherein said at least one environmental condition is at least one of the following conditions: a lighting condition, a camera condition and a printed color condition.

3. A system according to claim 1 and wherein said color selector comprises:

a color chart generator to generate at least one color chart of color patches of the range of colors produceable by a printer capable of printing color bar codes;

a color space generator to receive the output of a camera reader upon reading said at least one color chart with at least one illumination and to generate a color space database from said output; and

an actual space color selector to select N bar code colors from said color space database to be generally distinct from each other.

4. A unit according to claim 3 and wherein said actual space color selector comprises an optimizer to attempt to optimize the distance in color space between said N bar code colors.

5. A unit according to claim 4 and wherein said optimizer comprises a simulated annealer.

6. A color selector for a color bar code system, the selector comprising:

a color chart generator to generate at least one color chart of color patches of the range of colors produceable by a printer capable of printing color bar codes;

a color space generator to receive the output of a camera reader upon reading said at least one color chart with at least one illumination and to generate a color space database from said output; and

an actual space color selector to select N bar code colors from said color space database to be generally distinct.

7. A unit according to claim 6 and wherein said actual space color selector comprises an optimizer to attempt to optimize the distance in color space between said N bar code colors.

8. A unit according to claim 7 and wherein said optimizer comprises a simulated annealer.

9. A method comprising:

identifying an item associated with a bar code having a subset of N bar code colors from the output of a camera reader, wherein said N bar code colors are selected to be generally distinct from each other given the range of colors that said camera reader is expected to produce given at least one environmental condition in which said camera reader is expected to operate.

10. A method according to claim 9 and wherein said at least one environmental condition is at least one of the following conditions: a lighting condition, a camera condition and a printed color condition.

11. A method comprising:

selecting N bar code colors for a color bar code system to be generally distinct from each other given the range of colors that a camera reader is expected to produce given at least one environmental condition in which said camera reader is expected to operate.

12. A method according to claim 11 and wherein said selecting comprises:

generating at least one color chart of color patches of the range of colors produceable by a printer capable of printing color bar codes;

generating a color space database from the output of a camera reader upon reading said at least one color chart with at least one illumination; and

selecting N bar code colors from said color space database to be generally distinct from each other.

13. A method according to claim 12 and wherein said second selecting comprises attempting to optimize the distance in color space between said N bar code colors.

14. A method according to claim 13 and wherein said attempting comprises performing simulated annealing on said color space database.